

## INDEX OF SUBJECTS.

### TRANSACTIONS, PROCEEDINGS, AND ABSTRACTS.

1905.

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- 1-Phenyl-2:3-*o*-diphenylenecyclopentanone** and its phenylhydrazone (LANG), A., i, 292.
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- Thiol-group**, joined to a benzene nucleus, intramolecular oxidation of a, by a nitro-group in the ortho-position (BLANKSMA), A., i, 425.
- Thiomalic acid** and its esters and salts (ROSENHEIM and STADLER), A., i, 740.
- 3-Thiomethyl-1-phenyl-5-methylpyrazole** ( $\psi$ -*thiopyrrine*) and its salts and alkyl haloids, and 4-bromo- (MICHAELIS and HAHN), A., i, 379.
- 3-Thiomethyl-1-tolyl-5-methylpyrazoles**. See 3- $\psi$ -Thiotolylpyrines.
- 2-Thion-4-oxypyrimidine**, 5-bromo-6-amino- (JOHNSON and JOHNS), A., i, 837.
- 2-Thion-6-oxypyrimidine**, 5-amino-, *N*-benzoyl derivative of (JOHNSON), A., i, 836.
- Thionyl fluoride**. See under Sulphur.
- Thiophen**, homologues of, influence of light and heat on the chlorination and bromination of (OPOLSKI), A., i, 367.
- dimereuric hydroxyacetate, Dimroth's (SCHWALBE), A., i, 656.
- estimation of, colorimetrically (SCHWALBE), A., ii, 779.
- 2:3-Thio-1-phenyl-2:5-dimethylpyrazole** (3-*thiopyrrine*) and its salts and alkyl haloids (MICHAELIS and HAHN), A., i, 378.
- Thiopinacones**, conversion of, into hydrocarbons (MANCHOT and KRISCHE), A., i, 142.
- 3-Thiopyrrine**. See 2:3-Thio-1-phenyl-2:5-dimethylpyrazole.
- $\psi$ -**Thiopyrrine**. See 3-Thiomethyl-1-phenyl-5-methylpyrazole.
- 3-Thiopyrretrioxide**. See 2:3-Trioxo-thio-1-phenyl-2:5-dimethylpyrazole.
- Thiosulphuric acid**. See under Sulphur.
- Thiotolylpyrretrioxides** and 3- $\psi$ -Thiotolylpyrines, *o*- and *p*-, and their sulphones (MICHAELIS and BEHRENS), A., i, 380.
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- Thorianite** from Ceylon (DUNSTAN and BLAKE), A., ii, 833.  
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- Thorium**, uniform nature of (MEYER and GUMPERT), A., ii, 257; (EBERHARD), A., ii, 258<sup>1</sup>; (BASKERVILLE), A., ii, 395.  
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- Thorium tetra- and hexa-borides** (BINET DU JASSONNEIX), A., ii, 597.  
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- Thorium**, separation of, from the cerite earths by means of normal sodium sulphite (GROSSMANN), A., i, 326; (BATĚK), A., ii, 461.
- Thorium X** and the induced thorioactivity (v. LERCH), A., ii, 790.
- Thujamenthene** (TSCHUGAEFF), A., i, 73.
- Thujamenthone**, benzoyl derivative, and **Thujamenthoneisooxime**, hydroxy- (WALLACH and FRITZSCHE), A., i, 148.
- Thujenes**,  $\alpha$ - and  $\beta$ - (TSCHUGAEFF), A., i, 72.
- Thujone** (*tanacetone*), compounds of, with aldehydes, and alkyl derivatives of (HALLER), A., i, 602.
- Thujones**,  $\alpha$ - and  $\beta$ -, and their oximes and semicarbazones (WALLACH and BÜCKER), A., i, 147.
- isoThujoneamine* and its benzoyl derivative (WALLACH and FRITZSCHE), A., i, 148.
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- Thujylamine** and its *N*-dimethyl derivative and their salts (TSCHUGAEFF), A., i, 72.
- Thujyltrimethylammonium hydroxide** and salts (TSCHUGAEFF), A., i, 72.
- Thujylxanthic acid**, methylester (TSCHUGAEFF), A., i, 72.
- Thuja articulata* of Algeria, oil of the wood of (GRIMAL), A., i, 148.
- Thymine** from the products of pancreatic antolysis (KUTSCHER and LOHMANN), A., ii, 466; (LEVENE), A., ii, 732.  
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- Thymol ethers**, action of nitric acid on (DECKER and SOLONINA), A., i, 197.
- Thymomenthene**. See Tetrahydrocymene.
- Thymomenthol** (*hexahydrothymol*) and its isomeride and derivatives (BRUNEL), A., i, 197, 363.
- Thymomenthone** and its oxime and semicarbazone (BRUNEL), A., i, 363.
- Thymomenthylamine** and its picrate (BRUNEL), A., i, 363.
- Thymonucleic acid**, hydrolysis of (STEUDEL), A., i, 398.  
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- Thymoquinonethymolyimide ethers** (DECKER and SOLONINA), A., i, 197.
- Thymotincopellidide** (HILDEBRANDT), A., i, 155.
- Thymotinglycuronic anhydride**, *di*-chloro-, and *o*-Thymotinipiperidide (HILDEBRANDT), A., i, 80, 153.
- Thymotin-2-methylpiperidide** (HILDEBRANDT), A., i, 155.
- Thymus and Thyroid glands**. See under Gland.
- Tin**, physico-chemical researches on (COHEN and GOLDSCHMIDT), A., ii, 168.  
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- Tin alloys** with mercury (*tin amalgams*) (VAN HETEREN), A., ii, 39.  
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- Stannic** bromide and chloride, hydrolysis of (PFEIFFER), A., ii, 594.  
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- Stannichlorides** of the types  $M_2'SnCl_6$  and  $M'SnCl_6$  (v. BIRON), A., ii, 40.
- Stannates** (BELLUCCI and PARRAVANO), A., ii, 40.  
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- Perstannic acids** and their salts (TANATAR), A., ii, 325.
- Tin** methyl compound (PFEIFFER and HELLER), A., i, 123.  
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- Tin**, analysis of commercial (HOLLARD and BERTIAUX), A., ii, 67; (VICTOR), A., ii, 287.  
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- Tin steels**, constitution and properties of (GUILLET), A., ii, 527.
- Tinctures**, estimation of ethyl and methyl alcohols in, by the immersion refractometer (LEACH and LYTHGØE), A., ii, 655.
- Tissues**, animal, alcohol and acetone in (MAGNON), A., ii, 406.  
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- Titanic acid**. See under Titanium.
- Titanite** from Urotva, Transylvania (NICOLAU), A., ii, 599.
- Titanium** (STÄHLER), A., ii, 40; (STÄHLER and WIRTHWEIN), A., ii, 595.  
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- Titanium ammonio-compounds** (STÄHLER), A., ii, 596.
- Titanium trichloride**, action of, on organic hydroxyl compounds (ROSENHEIM and SCHNABEL), A., i, 731.  
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- Titanic acid**, estimation of, in plant ash and soils (PELLET and FRIBOURG), A., ii, 862.  
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- Metatitanic acid**, hydrated, action of silicon and tungsten on (TAMMANN), A., ii, 256.
- Titanium sesquisulphate** and its sulphuric acid, and double salts, with ammonium and rubidium sulphates (STÄHLER), A., ii, 595.
- Titanous sulphate**, electrolytic preparation of (EVANS), A., ii, 169.
- Titanium organic compounds** (STÄHLER), A., ii, 596.
- Titanium**, estimation of zirconium in presence of, especially in rocks (DRITRICH and POHL), A., ii, 287.
- Titanium steels**, constitution and properties of (GUILLET), A., ii, 527.
- Titanolimine** from Val Malenco, Lombardy (BRUGNATELLI), A., ii, 176.
- Titanous sulphate**. See under Titanium.
- Tobacco**, formation of formaldehyde in the combustion of (TRILLAT), A., ii, 53.  
 Deli (HISSINK), A., ii, 414.
- Tobaccos**, apparatus for determining the differences shown by, when smoked (TÓTH), A., ii, 216.
- Tobacco oil**, composition and chemical and physical properties of (AMPOLA and SCURT), A., ii, 214.
- Tobacco plant**, fertilising principles required by the (GIRARD and ROUSSEAU), A., ii, 345.
- m*-**Tolacylnaphthalimidine** and its isomeride (WIECHOWSKI), A., i, 708.

(*Tolyl compounds, Me = 1.*)

**Tolane** picrate (BRUNI and TORNANI), A., i, 270.

tetrachloro-, dibromide, quinone of, and its  $\psi$ -chloride (ZINCKE and WAGNER), A., i, 343.

tetrachloro-*p*-dihydroxy-, and its dibromide and chlorobromide and their acetates, and quinhedrone (ZINCKE and WAGNER), A., i, 342.

di-*p*-hydroxy-, and its diacetyl derivative (ZINCKE and MÜNCH), A., i, 56.

*o*-Tolualdehyde, *p*-chloro-, and its semicarbazone (AUWERS and KEIL), A., i, 445.

*p*-Tolualdehyde diacetate (CHAUSSENER), A., i, 791.

*p*-Tolualdehydophenylhydrazone (LAW and PERKIN), A., i, 40.

Tolualdehydesemicarbazones, *o*- and *p*- (LAW and PERKIN), A., i, 40.

**Toluene**, electrolytic oxidation of (LAW and PERKIN), A., i, 40.

latent heat of evaporation of (BROWN), T., 267; P., 75.

action of acetylene tetrabromide and aluminium chloride on (LAVAUX), A., i, 640.

condensation of, with benzaldehyde (KLEGL), A., i, 186.

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condensation of, with diphenic anhydride (PICK), A., i, 68.

action of methylene chloride and aluminium chloride on (LAVAUX), A., i, 43.

**Toluene**, amino-. See Toluidines.

diamino-. See 2:4-Tolylenediamine.

2:4:5-triamino-, brown sulphur dye from (KALLE & Co.), A., i, 540.

2-bromo-3:5-dinitro- and 3:5-dinitro-2-nitroamino-, and its salts (ZINCKE and MALKOMESIU), A., i, 487.

3:5-dihydroxy-. See Orcinol.

3-iodo-6-nitro- and 6-iodo-3-nitro- (ARTMANN), A., i, 879.

*m*- and *p*-iodoxy-, compounds of, with mercuric bromide and chloride, and *p*-nitro-, compound of, with mercuric chloride (MASCARELLI), A., i, 869.

*o*-nitro-, purification of (FARBWERKE VORM. MEISTER, LUCIUS, & BRÜNING), A., i, 639.

examination of, for the presence of small quantities of *p*-nitrotoluene (HOLLEMAN and JUNGUS), A., ii, 864.

3:5-dinitro-4-nitroamino-, and its silver salt (ZINCKE and KUCHENBECKER), A., i, 488.

(*Tolyl compounds, Me = 1.*)

**Tolueneazo**-. See also Tolyazo-.

*p*-Tolueneazodiethylaniline and its additive salts (GNEHM and BAUER), A., i, 831.

*m*-Tolueneazo- $\beta$ -naphthol,  $\omega$ -hydroxy- (LANGGUTH), A., i, 593.

*p*-Tolueneazophenol, *o*- and *m*-nitro-, and the acetyl compound of the *m*-nitro- (HEWITT and MITCHELL), T., 231; P., 61.

Toluenediazoimide, 3:5-dinitro- (ZINCKE and MALKOMESIU), A., i, 487.

*o*-Toluenesulphanilide (ULLMANN and LEHNER), A., i, 290.

*m*-Toluenesulphinic acid and its salts (TRÖGER and HILLE), A., i, 336.

*p*-Toluenesulphinic acid, mercuric salt (PETERS), A., i, 640.

Toluene-2-sulpho-alanine, -glycine, and -glutamic acid, 4-nitro- (SIEGFRIED), A., i, 59.

Toluenesulphonacetic acids, amides, nitriles, and thioamides of, and the chloro- and bromo-derivatives of the para-amide (TRÖGER and HILLE), A., i, 336.

Toluene-*p*-sulphonalkylamides and 2-nitro- (CHATTAWAY), T., 159.

Toluene-*o*- and -*p*-sulphonamides, separation of (BARGE & GIVANDAN), A., i, 124.

Toluenesulphonethenylaminooximes, *o*- and -*p*- (TRÖGER and VOLKMER), A., i, 356.

Toluene-*o*- and -*p*-sulphon-halogen- and -alkylhalogen-amides and 2-nitro-derivatives of the *p*-compounds (CHATTAWAY), T., 151; P., 7.

Toluene- $\omega$ -sulphonic acid, *o*-chloro-*m*-nitro-, and its sodium salt (FARBWERKE VORM. MEISTER, LUCIUS, and BRÜNING), A., i, 124.

*p*-Tolylsulphonphenyloxamide *p*-tolylsulphonate and its acetyl and *m*-nitro-derivatives (REVERDIN and DRESEL), A., i, 51.

*o*-Toluenesulphonyl bromide and chloride, preparation of (ULLMANN and LEHNER), A., i, 289.

Toluene-*p*-sulphonylaminobenzeneazo- $\beta$ -naphthol (MORGAN and MICKLETHWAIT), T., 1305.

Toluene-*p*-sulphonyl-*p*-nitroaniline (MORGAN and MICKLETHWAIT), T., 1303.

Toluene-*p*-sulphonyl-*p*-phenylenediamine and its derivatives (WILLSTÄTTER and PFANNENSTIEL), A., i, 669.

and its diazotisation (MORGAN and MICKLETHWAIT), T., 1303; P., 222.

(*Tolyl compounds, Me = 1.*)

*m*-**Toluic acid**,  $\omega$ -hydroxy-, and its nitrile (LANGGUTH), A., i, 593.

**Toluidilacetonedicarboxylic acids**, *o*-, *m*-, and *p*-, and their amides and imides (SCHROETER and STASSEN), A., i, 820.

*o*-**Toluidine**, preparation of pure, and a method for ascertaining its purity (HOLLEMAN), A., i, 272.

influence of temperature on the action of acetyl thiocyanate on (DORAN and DIXON), T., 338; P., 77.

action of ethyl chloroacetate on the magnesium halogen compound of (BODROUX), A., i, 643.

4-nitro-, bromination of (MORGAN and CLAYTON), T., 951.

*p*-**Toluidine**, freezing points of mixtures of, with the dihydric phenols (PHILIP and SMITH), T., 1735; P., 255.

detection of small quantities of (HOLLEMAN), A., i, 272.

**Toluidines**, 2- and 3-, 5- and 6-iodo-derivatives of (ARTMANN), A., i, 878.

*o*- and *p*-, formyl derivatives, crystalline liquid modifications of (ORLOFF), A., i, 643.

hydrochlorides, double salts with palladous bromides and chlorides (GUTBIER), A., i, 584.

*o*-, *m*-, and *p*-, diazoamino-compounds from (VIGNON and SIMONET), A., i, 397.

4-*p*-**Toluidinoalizarin** 2-methyl ether (FARBWERKE VORM. MEISTER, LUCIUS, & BRÜNING), A., i, 709.

*p*-**Toluidinobenzylacetphenone** (MAYER), A., i, 214.

*m*-**Toluidinocarballic acid** (SCHROETER and STASSEN), A., i, 820.

**Toluidinodiphenylmethanes**, *o*- and *p*-, and their hydrochlorides (BUSCH and RINCK), A., i, 519.

*o*-**Toluidinoformaldehydesulphoxylic acid**, sodium salt (REINHARDT, DEHNEL, and LABHARDT), A., i, 261.

9-**Tolunaphthazine**. See 9-Methyl- $\alpha\beta$ -naphthaphenazine.

*p*-**Toluenitrile**, reduction of (FRÉBAULT), A., i, 437.

3-amino-, acyl derivatives of, and 3-nitro- (BOGERT and HOFFMAN), A., i, 891.

*p*-**Toluoxyacetic acid** and its ethyl ester (MARGUERY), A., i, 527.

*p*-**Toluoxy-*o*-benzoic acid**, isomeric methyl esters (MEYER), A., i, 134.

4-*p*-**Toluoxyfluorenone** and its phenylhydrazone (PICK), A., i, 68.

(*Tolyl compounds, Me = 1.*)

*p*-**Toluquinol**, 5-bromo-3-amino-, and its acetyl derivatives and *mono*- and *di*-bromonitro- (ZINCKE and EMMERICH), A., i, 880.

$\psi$ -**Toluquinol**, 3:6-dichloro-5-bromo-2-hydroxy- (ZINCKE and BUFF), A., i, 881.

*p*-**Toluquinone**, bromonitro-derivatives (ZINCKE and EMMERICH), A., i, 879.

**Tolyl methyl ethers**, *o*-, *m*-, and *p*-, dielectric constants of, dissolved in benzene and *m*-xylene (PHILIP and HAYNES), T., 1002; P., 200.

*o*-**Tolylazoformaldoxime** (BUSCH and WOLBRING), A., i, 494.

**Tolylazo-**. See also **Tolueneazo-**.

**Tolylbisdinaphthaxanthen**, *m*-amino- (ROBYN), A., i, 608.

**Tolylcamphoformeneamine**, *o*-nitro- (TINGLE and HOFFMANN), A., i, 800.

*p*-**Tolylcamphoformeneamine** and its acetyl derivative and **carboxylic acid** and its *p*-toluidine salt (TINGLE and HOFFMANN), A., i, 799.

*m*-**Tolylcamphoformeneaminecarboxylic acid** and its *m*-toluidine salt (TINGLE and HOFFMANN), A., i, 799.

**Tolylcarbamic hydrazides**, *o*- and *p*-, and their hydrochlorides and acetone, acetophenone, and *o*-hydroxybenzylidene compounds (BORSCHKE), A., i, 306.

**Tolylcarbamides**, introduction of iodine into (ARTMANN), A., i, 878.

*o*-**Tolylcarbinol**, alkyl ethers of (FARBEN-FABRIKEN VORM. F. BAYER & Co.), A., i, 128.

*p*-**Tolyltrichloromethylcarbinol** and its acetate and benzoate (DINESMANN), A., i, 645.

*o*-**Tolyltrimethylcarbinol** (KAY and PERKIN), T., 1071.

*m*-**Tolyltrimethylcarbinol** (PERKIN and TATTERSALL), T., 1090.

*p*-**Tolyltrimethylcarbinol** and its phenylurethane (PERKIN and PICKLES), T., 652.

**Tolylidinaphthaxanthen**, *o*- and *p*-amino- (ROBYN), A., i, 608.

2:4-**Tolylenediamine** and its acyl derivatives and 5-bromo- (MORGAN and CLAYTON), T., 949.

*N*-bistoluene-*p*-sulphonyl derivative (OEHLER), A., i, 829.

4:4'-oxalyl derivative (FARBWERKE VORM. MEISTER, LUCIUS, & BRÜNING), A., i, 249.

5-nitro-, azo-derivatives of (MORGAN and WOOTTON), T., 940; P., 179.

**Tolylenedimethyldiamine**. See **Dimethyltolylenediamine**.

(*Tolyl compounds, Me = 1.*)

- 1:2:4-Tolylenedisulphonacetonitrile** (TRÖGER and HILLE), A., i, 337.
- Tolyethyl alcohols**, *o*- and *p*-, and their phenylurethanes (GRIGNARD), A., i, 594.
- o*-**Tolyglycinoacetic acid**, preparation of (DE MOULPIED), T., 440; P., 63.
- Tolyglycollic acids**. See Tolyoxy-acetic acids.
- p*-**Tolyhydrazinoaminomethylenecarboxylic acid**, ethyl ester and amide (BOWACK and LAPWORTH), T., 1865.
- p*-**Tolyhydrazinohalogenmethylenecarboxylic acids**, ethyl esters (BOWACK and LAPWORTH), T., 1863.
- p*-**Tolidenehydrazine**, benzoyl derivative, silver compound of (STOLLÉ and MÜNCH), A., i, 94.
- o*-**Tolylimino-*p*-tolyl-*p*-tolutriazine** (BUSCH and BERGMANN), A., i, 309.
- 3-*p*-Tolyl-6-methyl-3:4-dihydro-8-phenotriazine** and its salts (v. WALTHER and BAMBERG), A., i, 299.
- m*-**Tolyl methyl ketone**, condensation of, with naphthalaldehydic acid (WIECHOWSKI), A., i, 707.
- Tolyl-2-methylpiperidide**, dibromo- (HILDEBRANDT), A., i, 155.
- 1-Tolyl-5-methylpyrazoles**, *o*- and *p*-, 3-chloro-, and their methiodides (MICHAELIS and BEHRENS), A., i, 380.
- 1-*p*-Tolyl-3-methylpyrazole-4-azobenzene** and its 5-chloro-, 5-nitro-, 5-thio-, 5-thioalkyl-, 5-phenylsulphone, and 5-thiobenzoate derivatives, and 5-sulphide (MICHAELIS, LEONHARDT, and WAHLE), A., i, 395.
- 1-*p*-Tolyl-5-methylpyrazole-4-azobenzene**, 3-chloro- (MICHAELIS and BEHRENS), A., i, 397.
- 1-*p*-Tolyl-5-methylpyrazole-4-*p*-azotoluene** and its 5-chloro- and 5-thio-derivatives (MICHAELIS, LEONHARDT, and WAHLE), A., i, 395.
- 1-Tolyl-5-methyl-3-pyrazolones**, *o*- and *p*-, and their salts, benzoyl, and benzylidene derivatives (MICHAELIS and BEHRENS), A., i, 380.
- Tolyl-5-methyl-3-pyrazolone-4-azobenzenes**, 1-*o*- and *p*-, and their salts and benzenesulphonyl derivatives (MICHAELIS and BEHRENS), A., i, 396.
- 1-Tolyl-2-methylpyrrolidone-2-carboxylic acids**, *o*-, *m*-, and *p*-, and their esters, salts, amides, aminoximes, and nitriles (KÜHLING and FALK), A., i, 372.
- p*-Tolyl-6-methylquinolyl-8-iodonium hydroxide** and their salts (WILLGERODT), A., i, 548.

(*Tolyl compounds, Me = 1.*)

- m*-**Tolyl naphthalidomethyl ketone** and its pseudo-acid, oxime, and phenylhydrazine (WIECHOWSKI), A., i, 708.
- Tolynaphthalimides**, *o*-, *m*-, and *p*- (BARGELLINI), A., i, 210.
- p*-**Tolynaphthylamine-8-sulphonic acid** (AKTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION), A., i, 717.
- 1-*p*-Tolynaphthylamine-6- and -7-sulphonic acids** (AKTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION), A., i, 770.
- Tolylisomnitroacetonitriles**, *o*-, *m*-, and *p*-, sodium derivatives (WISLIGENUS and WREN), A., i, 284.
- p*-**Tolyl-*m*-nitrobenzaldoxime** (PLANCHER and PICCININI), A., i, 706.
- Tolynitromethanes**, *o*-, *m*-, and *p*- (WISLIGENUS and WREN), A., i, 284.
- Tolyloxyacetic acids** (*tolyglycollic acids*) *o*-, *m*-, and *p*-, nitro-derivatives of, and 3-amino- of the para-acid (KERNOT), A., i, 286.
- Tolyloxybenzoic acids**, *o*- and *p*- (AKTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION), A., i, 780.
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